

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
12 May 2005 (12.05.2005)

PCT

(10) International Publication Number
WO 2005/041739 A1

(51) International Patent Classification⁷: **A47L 9/16**

(21) International Application Number:
PCT/US2004/034841

(22) International Filing Date: 21 October 2004 (21.10.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/481,542 22 October 2003 (22.10.2003) US

(71) Applicant (for all designated States except US): **BISSELL HOMECARE, INC.** [US/US]; 2345 Walker Avenue, N.W., Grand Rapids, Michigan 49544-2516 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **FESTER, Joseph A.** [US/US]; 61 Honey Creek Avenue, N.E., Ada, Michigan 49301 (US).

(74) Agent: **MCGARRY, John E.**; 171 Monroe Avenue, N.W. Suite 600, Grand Rapids, Michigan 49503 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

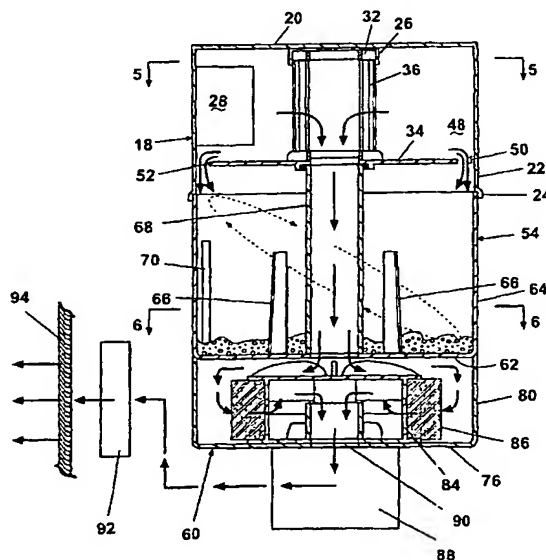
Published:

- with international search report
- with amended claims

Date of publication of the amended claims: 13 October 2005

[Continued on next page]

(54) Title: **VACUUM CLEANER WITH CYCLONIC DIRT SEPARATION AND BOTTOM DISCHARGE DIRT CUP WITH FILTER**



(57) Abstract: A vacuum cleaner with cyclonic dirt separation and a bottom discharge dirt cup beneath the cyclone separator and a filter beneath the dirt cup and between the dirt cup and a suction motor inlet. A separator plate separates the cyclone separator from the dirt cup. Fins project from a sidewall of the dirt cup, and fingers projecting from a bottom wall of the dirt cup. A hollow standpipe in the dirt cup transports working air from the cyclone separator outlet to the filter.

WO 2005/041739 A1



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.